

SECTION 07710
MANUFACTURED ROOF SPECIALTIES



PART 1 GENERAL

1.1 SECTION INCLUDES

- A. **Roof drains for new roofing.**
- B. **Roof drains for reroofing.**
- C. **Roof drains for retrofitting into existing roof drains.**
- D. **Roof vents and breathers.**
- E. **Soil vent stack flashings.**

1.2 RELATED SECTIONS

- A. **Section 07500 - Membrane Roofing.**
- B. **Section 07510 - built-up Bituminous Roofing.**
- C. **Section 07530 - Elastomeric Membrane Roofing.**
- D. **Section 07550 - Modified Bituminous Membrane Roofing.**
- E. **Section 07590 - Roof Maintenance and Repairs.**
- F. **Section 15150 - Sanitary Waste and Vent Piping.**
- G. **Section 15160 - Storm Drainage Piping.**

1.3 SUBMITTALS

- A. **Submit under provisions of Section 01300.**
- B. **Product Data: Provide manufacturer's standard details and installation instructions.**

1.4 PROJECT CONDITIONS

- A. **Obtain Material Safety Data Sheets (MSDS) from manufacturer if required.**

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Provide prefabricated roof specialties fabricated by Marathon Roofing Products, Inc: 3310 N Benzing Road, Orchard Park, NY 14127-1538. Tel: (716) 332-7673 or (800) 828-8424; Fax: (716) 332-7676.**
- B. Substitutions: Not permitted.**

2.2 FLANGE/PIPE DRAINS FOR NEW CONSTRUCTION

- A. Marathon Premium Century Series Roof Drains:**
 - 1. Straight profile, solid copper construction.**
 - 2. Straight profile, solid copper construction, with clamping ring.**
 - 3. 18-inch (457-mm) diameter flange, 20 ounces per square foot (61-kg/sq. m) copper.**
 - a. Uncoated.**
 - b. Primed for adhesion to asphaltic membranes.**
 - c. PVC-coated, for heat welded membrane attachment.**
 - 4. Strainer: 10-inch (254-mm) diameter, bolted down.**
 - a. High-density polyethylene.**
 - b. Cast Iron as option.**
 - 5. Connections: Pipe size as indicated on the drawings.**
 - a. Plain, 9-inch (228 mm) depth.**
 - b. Plain, 15-inch (381 mm) depth.**
 - c. Expansion coupler (Fernco) with stainless steel compression clamps; vertical or 90 degree outlet to suit project conditions, or as indicated.**
 - d. PVC hub (Conectite) fitting, vertical outlet only to suit project conditions, or as indicated.**
- B. Marathon Economy Century Series Roof Drains:**
 - 1. Straight profile, solid copper construction.**
 - 2. Straight profile, solid copper construction, with clamping ring**
 - 3. 14-inch (355-mm) diameter flange, 16 ounces per square foot (48.8 kg/sq. m) copper.**
 - a. Primed for adhesion to asphaltic membranes.**
 - b. PVC-coated, for heat welded membrane attachment.**
 - 4. Strainer: 10-inch (254-mm) diameter.**
 - a. High-density polyethylene.**
 - b. Cast Iron as option.**
 - 5. Connections: Match pipe size O.D. as indicated on the drawings.**
 - a. Plain, 9-inch (228 mm) depth.**
 - b. Plain, 15-inch (381 mm) depth.**
 - c. Expansion coupler (Fernco) with stainless steel compression clamps; vertical or 90 degree outlet to suit project conditions, or as indicated.**

2.3 FLANGE/EXPANSION-SLEEVE RETROFIT DRAINS FOR ANTI-BACK-UP PROTECTION

A. Marathon PROLINER Series.

1. Straight profile.
2. Straight profile, with clamping ring.
3. Flange: 18-inch (457-mm) diameter flange, 20 ounces per square foot (61-kg/sq. m) copper.
 - a. Uncoated.
 - b. Primed for adhesion to asphaltic membranes.
 - c. PVC-coated, for heat welded membrane attachment.
4. Strainer: 10-inch (254-mm) diameter.
 - a. High-density polyethylene.
 - b. Cast Iron as option.
5. Outlet: Malleable metal alloy. Pipe size as indicated on the drawings; diameter sized to slip inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

2.4 FLANGE/MECHANICAL-SEAL RETROFIT DRAINS

A. Marathon Copper-Tite Series Roof Drains:

1. Straight (CTS) profile.
2. Straight profile with clamping ring.
3. Flange: 20 ounces per square foot (61-kg/sq. m) copper.
 - a. Plain finish
 - b. Asphalt primed finish.
 - c. PVC-coated finish.
4. Flange also available in 14 inches (356 mm).
5. Strainer: 10-inch (254-mm) diameter.
 - a. High-density polyethylene.
 - b. Cast Iron as option
6. Outlet: Copper outlet with 2-inch (51-mm) wide asphalt-impregnated high density expanding foam compression seal. Pipe size as indicated on the drawings; diameter sized to slip inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

B. Marathon ProSeal Series Retrofit Roof Drains:

1. Straight profile.
2. Straight profile, with clamping ring.
3. Flange: 18-inch (457-mm) diameter flange, 20 ounces per square foot (61-kg/sq. m) copper.
 - a. Uncoated.
 - b. Primed for adhesion to asphaltic membranes.
 - c. PVC-coated, for heat welded membrane attachment.
4. Strainer: 10-inch (254-mm) diameter.
 - a. High-density polyethylene.
 - b. Cast Iron as option
5. Outlet: Copper outlet with elastomeric mechanical compression seal. Pipe size as indicated on the drawings; diameter sized to slip inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

- C. Marathon Aluminum Fast Flow Retrofit Roof Drains:**
1. Straight profile.
 2. Straight profile, with clamping ring.
 3. Flange: 16-inch (419-mm) diameter flange, .081 Spun Aluminum.
 - a. Uncoated.
 - b. Primed for adhesion to asphalted membranes.
 - c. PVC-coated, for heat welded membrane attachment.
 4. Strainer: 10-inch (254-mm) diameter (For Clamping Ring Style). 8-inch (Non Clamping Ring Style)
 - a. High-density polyethylene 10" and 8"
 - b. Cast Iron. 10" as option
 - c. Cast Aluminum 8" as option

Outlet: Aluminum outlet with electrometric mechanical compression seal. Pipe size as indicated on the drawings; diameter sized to slip inside of existing drain piping, with 1/4-inch (6 mm) maximum difference between existing pipe I.D. and outlet O.D.

2.5 MECHANICAL DRAINS

- A. Marathon ULRD (Utility Large Roof Drain):**
1. Injection molded PVC drain body with solvent-weld style outlet.
 2. Injection molded ABS drain body with solvent-weld style outlet.
 3. Strainer: 10-inch Molded polyethylene dome.
 4. Strainer: 10-inch Epoxy-coated metal dome.
 5. Clamping ring: Epoxy-coated aluminum.
 6. Underdeck clamp: Aluminum
 7. Adjustable insulation extension flange: Match insulation thickness.
 8. Bearing pan.
 9. Waterproofing flange.
 10. Flow-control device.
 11. Flexible expansion coupling with stainless steel band clamps.
 12. Pipe size as indicated on the drawings.
- B. Marathon RD-1/10: Epoxy-coated cast iron drain body with no-hub style outlet.**
1. Standard size (RD-1).
 2. Large size (RD-10).
 3. Strainer: Molded polyethylene dome.
 4. Strainer: Epoxy-coated metal dome.
 5. Clamping ring: Epoxy-coated aluminum.
 6. Underdeck clamp: Aluminum
 7. Adjustable insulation extension flange: Match insulation thickness.
 8. Bearing pan.
 9. Waterproofing flange.
 10. Flow-control device.
 11. Flexible expansion coupling with stainless steel band clamps.
 12. Pipe size as indicated on the drawings.

- C. Marathon Heavyweight Drains: Cast iron body and outlet.**
 - 1. **Marathon Small Body Roof Drain.**
 - 2. **Marathon Overflow Combination Roof Drain.**
 - 3. **Marathon Extra Large Body Roof Drain.**
 - 4. **Strainer: Molded polyethylene dome.**
 - 5. **Strainer: Epoxy-coated metal dome.**
 - 6. **Clamping Ring: Cast iron.**
 - 7. **Underdeck clamps.**
 - 8. **Bearing pan.**
 - 9. **Reducer bushings.**

2.6 PARAPET SCUPPER DRAINS

- A. Marathon RD-27.**
- B. Construction:**
 - 1. **Cast aluminum grate, body, and outlet.**
 - 2. **Reversible hub connection for 45 or 90-degree outlet.**
 - 3. **Angled grate.**
 - 4. **Flat grate.**
 - 5. **Nickel bronze finish as option**

2.7 ROOF VENTS AND BREATHERS

- A. Marathon Aluminum Insulvent:**
 - 1. **Heavy gage spun aluminum.**
 - 2. **Secured cap to prevent entry of wind-blown rain or snow.**
 - 3. **4-inch (101-mm) diameter base opening.**
 - 4. **10-3/4 inch (273 mm) diameter flange.**
 - a. **Uncoated.**
 - b. **Primed for adhesion to asphaltic membranes.**
 - c. **PVC-coated, for heat welded membrane attachment.**
 - 5. **8-1/2 inches overall height.**
 - 6. **One-way valve to prevent moisture re-entry.**
 - 7. **Two-way design to allow both exhaust and convective air movement to create equalized pressure.**
 - 8. **Expanded polystyrene foam insulation, to prevent condensation.**

- B. Marathon Aluminum MC (Medium Capacity) and LC (Large Capacity) Vent:**
1. Heavy gage spun aluminum.
 2. Secured cap to prevent entry of wind-blown rain or snow.
 3. MC: 8-inch (203-mm) diameter base opening and 10-inch (254-mm) diameter flange.
 4. LC: 10-inch (254-mm) diameter base opening and 12-inch (304-mm) diameter flange.
 - a. Uncoated.
 - b. Primed for adhesion to asphaltic membranes.
 - c. PVC-coated, for heat welded membrane attachment.
 5. MC: 6-1/2 inches (165 mm) overall height.
 6. LC: 8 inches (203 mm) overall height.
 7. One-way valve to prevent moisture re-entry.
 8. Two-way design to allow both exhaust and convective air movement to create equalized pressure.
 9. Expanded polystyrene foam insulation.
- C. Marathon Aluminum SC Vent (Small Capacity):**
1. Heavy gage spun aluminum.
 2. Secured cap to resist vandals.
 3. 2-7/8-inch (73-mm) diameter base opening.
 4. 6-inch (152-mm) diameter flange.
 - a. Uncoated.
 - b. Primed for adhesion to asphaltic membranes.
 - c. PVC-coated, for heat welded membrane attachment.
 5. 4-1/4 inches (108 mm) overall height.
 6. One-way valve to prevent moisture re-entry.
 7. Two-way design to allow both exhaust and convective air movement to create equalized pressure.
- D. Marathon Ex-Flow Insulation Vent:**
1. High-density polyethylene construction.
 2. PVC construction.
 3. Secured cap to prevent entry of wind-blown rain or snow.
 4. 5-1/4-inch (133-mm) diameter base opening.
 5. 10-1/2-inch (266-mm) diameter flange.
 6. 8 inches (203 mm) overall height.
 7. One-way valve to prevent moisture re-entry.
- E. Marathon PreVent PVC Vent**
1. Premium Large Capacity PVC Vent
 2. PVC Construction
 3. 80 square inches of venting area per vent
 4. Available in One Way and Two Way
 5. Cap permanently attached – vandal proof
 6. Pre-Drilled flange for fastening to roof deck
 7. 10 1/4- inch (245 mm) diameter base opening
 8. 14 3/4-inch (382 mm) diameter flange
 9. 9" (229 mm) overall height

2.8 SOIL VENT STACK FLASHINGS

- A. Marathon High Security Vent Stack Flashing:**
 - 1. Lead-free, tamper-resistant construction.
 - 2. Heavy gage spun aluminum.
 - 3. 7-inch (177 mm) diameter base opening; 4-inch (101 mm) DWV pipe capacity with hub.
 - 4. 15-1/4-inch (387-mm) diameter flange.
 - 5. 15-1/4 inches (387 mm) overall height.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that dimensions are correct and substrate is in proper condition for installation. Correct unsatisfactory conditions before proceeding with installation.**
- B. Verify elevation of drain to provide positive drainage.**

3.2 PREPARATION

- A. Remove bitumen, gravel, debris, adhesives, etc., from existing drain and pipe inlet. Ensure that surface of drain and pipe inlet is clean and dry; employ hot air gun if necessary to remove moisture. Verify that I.D. of existing drain does not exceed O.D. of new outlet by more than 1/4 inch (6 mm).**
- B. Verify that deck opening is sufficient to accommodate the O.D. of connector. Where large existing drain bowl is encountered use funnel profile. If using new straight profile drain, provide support for the flange by installing 1/2 inch (12 mm) pressure-preservative-treated plywood, rigid high compressive strength insulation, or by filling bowl with spray polyurethane foam.**

3.3 ROOF DRAIN INSTALLATION

- A. Flange Drains:**
 - 1. Set flange in a full bed of mastic or adhesive, and mechanically fasten flange through roofing assembly to the deck.
 - 2. Strip in drain flange in accordance with membrane manufacturer's instructions.
 - 3. Do not allow flame of torch used to apply modified bitumen to come in contact with flange.
 - 4. Hand tighten clamping ring with 7/16-inch (11 mm) hand wrench.

3.4 ROOF DRAIN OUTLET CONNECTIONS

- A. Flange/Pipe Roof Drains:**
 - 1. Connect to piping in accordance with provisions specified in Division 15.
 - 2. Expansion connections: Hand tighten compression bands with torque wrench calibrated to 60 inch-pounds (759,600 N m). Adjust if required to make watertight.
 - 3. PVC hub fittings: Solvent weld using compatible solvent cement in accordance with manufacturer's instructions to achieve a watertight connection.

- B. Flange/Sleeve Drains:**
 - 1. Set drain outlet inside of existing drain, using rubber type sealant to ensure a watertight connection between drain and existing pipe.
- C. Flange/Expansion-Sleeve Drains:**
 - 1. Apply sealant to outlet and existing drain leader. Apply an additional amount to top inside of existing drainpipe. Spread sealant evenly around whole outlet, extending at least 5 inches (127 mm) up lower portion.
 - 2. Set drain outlet inside of existing drain.
 - 3. Expand malleable metal outlet at beginning at top of drainpipe and leaving 1-inch (25-mm) distance between expansions. Use Proliner Expander Tool Kit with properly sized accessories. Use 12 half-turn for 3-inch (76 mm) and 4-inch (101-mm) diameter drains, and 9 half-turn for 5-inch (127 mm) and 6-inch (152-mm) diameter drains. Verify that outlet has been sufficiently expanded to ensure a watertight connection between drain and existing pipe. Adjust if necessary.
- D. Flange/Mechanical-Seal Retrofit Drains:**
 - 1. Set drain outlet inside of existing drain.
 - 2. Uniformly tighten the 3 seal screws until quite snug to ensure a watertight connection between drain and existing pipe.
- E. Mechanical Drains:**
 - 1. Connect to piping in accordance with provisions specified in Division 15.
 - 2. Expansion connections: Hand tighten compression bands with torque wrench calibrated to 60 inch-pounds (759,600 N m). Adjust if required to make watertight.
 - 3. PVC hub fittings: Solvent weld using compatible solvent cement in accordance with manufacturer's instructions to achieve a watertight connection.
- F. Parapet/Scupper Drains:** Connect to piping in accordance with provisions specified in Division 15.
- G. Install strainer domes.**

3.5 ROOF VENT INSTALLATION

- A. Existing Membranes:** Remove bitumen, gravel, debris, adhesives, etc., from area to receive vent.
- B. Core through membrane and insulation to deck.**
 - 1. Do not disturb vapor barrier, if any.
 - 2. Set flange in a full bed of mastic or adhesive.
 - 3. Strip in vent flange in accordance with membrane manufacturer's instructions.
 - 4. Do not allow flame of torch used to apply modified bitumen to come in contact with flange.

3.6 SOIL VENT STACK FLASHING INSTALLATION

- A. Set flange in a full bed of mastic or adhesive.**
 - 1. Strip in stack flange in accordance with membrane manufacturer's instructions.
 - 2. Do not allow flame of torch used to apply modified bitumen to come in contact with flange.

3.7 CLEANING AND PROTECTION

- A. Clean work area of debris associated with roofing specialties.**
- B. Protect finished work.**

END OF SECTION